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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,191	01/16/2002	Jean-Yves Vion-Dury	111170	3084
27074	7590	10/26/2004	EXAMINER	
OLIFF & BERRIDGE, PLC. P.O. BOX 19928 ALEXANDRIA, VA 22320			PHAM, CHRYSTINE	
			ART UNIT	PAPER NUMBER
			2122	

DATE MAILED: 10/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,191

Applicant(s)

VION-DURY ET AL.

Examiner

Chrystine Pham

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/25/02
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The attempt to incorporate subject matter into this application by reference to related application (page 1 lines 6-7) is improper because it fails to provide up-to-date status (i.e., serial number) of the related application. Correction is required.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 8-9, 11-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Ptacek et al. (US 6636972), hereinafter, *Ptacek et al.*.

As per claim 1, *Ptacek et al.* teach a method of operating a computer system comprising a memory (i.e., article of manufacture) for storing instructions (e.g., see *MAIN MEMORY 102*, *CACHE MEMORY 109*, *MASS STORAGE 107* FIG.1 & associated text) for evaluating a programming language statement (e.g., see *SCRIPTS 271* FIG.2B & associated text, see *CASL program statements* col.9:53-62, see *AND statement*, *OR statement* col.12:36-45) stored in

memory (e.g., see *MAIN MEMORY 102*, *CACHE MEMORY 109*, *MASS STORAGE 107* FIG.1 & associated text, col.5:15-23, col.4:65-66) that includes a first and a second sub-statement (e.g., see *expressions* col.9:53-62, see *subexpression*, *AND statement*, *OR statement* col.12:36-45), the method comprising the steps of: a processor (e.g., see *CENTRAL PROCESSOR 101* FIG.1 & associated text, *CASL COMPILER 273* FIG.2B & associated text) evaluating the first sub-statement (e.g., col.12:38-40) and the processor determining an evaluation success result if the evaluation succeeds (e.g., see *OR statement evaluates true* col.12:40) or a distinguished value if evaluation fails (e.g., see *AND statement evaluates false* col.12:39) ; said distinguished value being a value not included in the range of possible evaluation success results (e.g., see *value "0"*, *"false"* col.10:46-47, see *any nonzero value*, *"true"* col.10:47) of the first sub-statement; determining whether the second sub-statement is to be evaluated, and if so, evaluating the second sub-statement and determining an evaluation success result if evaluation succeeds or said distinguished value if evaluation fails (e.g., see *"short-circuit"* , *expression ceases to evaluate* col.12:36-42); a range of possible evaluation success results of the second sub-statement not including said distinguished value (e.g., see *value "0"*, *"false"* col.10:46-47, see *any nonzero value*, *"true"* col.10:47); and the processor determining an evaluation result of the statement depending on at least whether evaluation of the first sub-statement succeeds or fails (e.g., see *"short-circuit"*, *AND and OR operations* col.12:30-55).

As per claim 2, *Ptacek et al.* teach the method as applied to claim 1, wherein the second sub-statement is evaluated if evaluation of the first sub-statement did not fail, and the evaluation result of the statement is determined to be the evaluation success result of the second sub-statement if evaluation of the first and the second sub-statements succeeds (e.g., see *AND operator, 1 && 3 && 2* col.12:30-55), and wherein the evaluation result of the statement is said distinguished value if evaluation of at least one of the first and second sub-statements fails (e.g., see *AND operator, 1 && 0 && foo()*; col.12:30-55).

As per claim 3, *Ptacek et al.* teach the method as applied to claim 1, wherein the second sub-statement is evaluated if evaluation of the first sub-statement fails, and wherein the evaluation result of the statement is the evaluation success result of the first sub-statement if evaluation of the first sub-statement succeeds; the evaluation result of the statement is the evaluation success result of the second sub-statement if evaluation of the first sub-statement fails but evaluation of the second sub-statement succeeds; and the evaluation result of the statement is said distinguished value if evaluation of both the first and the second sub-statements fails (e.g., see "*short-circuit*", *OR operator* col.12:30-55).

As per claim 8, *Ptacek et al.* teach the method as applied to claim 1, wherein at least one of the first and second sub-statements includes a closure loop statement having an operand indicating that evaluation of the respective sub-statement does not stop before said operand evaluates to said distinguished value (e.g., see *control construct, expressions, while loops* col.9:56-63).

As per claim 9, *Ptacek et al.* teach the method as applied to claim 1, wherein at least one of the first or second sub-statements includes a rule statement having a first argument and a second argument, the evaluation of the first argument triggering the evaluation of the second argument (e.g., see *1 && 0 && foo();*, *short-circuited after second subexpression* col.12:50-55).

As per claim 11, *Ptacek et al.* teach the method as applied to claim 1, wherein at least one of the first or second sub-statements includes an unordered action system (e.g., e.g., see *control construct, if conditionals* col.9:58-61, see *collection of statements, assignments* col.10:33-45).

As per claim 12, *Ptacek et al.* teach the method as applied to claim 1, wherein one of the first and second sub-statements is a declarative statement and the other one of the first and

second sub-statements is an imperative statement (e.g., see *control construct, if conditionals* col.9:58-61, see *collection of statements, assignments* col.10:33-45).

As per claim 13, *Ptacek et al.* teach the method as applied to claim 1, wherein the first and second sub-statements are typed according to a hierarchy of types (e.g., see *Integers* col.10:14).

As per claim 14, *Ptacek et al.* teach the method as applied to claim 13, wherein said hierarchy of types includes at least one minimal type (e.g., see "*false*", value "*0*", "*true*", any *nonzero value* col.10:45-47).

5. Claim 15 recites an article of manufacture version of the method addressed in claim 1, therefore, is rejected for the same reasons as cited in claim 1.
6. Claim 16 recites a system version of method addressed in claims 1 and 2, therefore, is rejected for the same reasons as cited in claims 1 and 2.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
8. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ptacek et al.* as applied to claim 1 further in view of *Court et al.* (US5276854), hereinafter, *Court et al.*.

As per claim 4, *Ptacek et al.* teach the method as applied to claim 1 wherein the first and second substatements are evaluated, and the evaluation result of the statement is said distinguished value if evaluation of at least one of the first and second sub-statement fails (see claim 2) otherwise, the evaluation result is said distinguished value only if evaluation of both the first and second sub-statements fails (see claim 3). *Ptacek et al.* do not expressly disclose evaluating the second sub-statement concurrently with the first sub-statement. However, *Court et al.* disclose a method of evaluating the first and second sub-statements (e.g., see *statement, Boolean logic equation col.3:40-51, see evaluating the Boolean equation, PHA = (BBF.and.BAE.and.TCL).or.(PPH.and.tcl) col.5:41-62*) concurrently (e.g., see *in parallel col.4:52-54, see simultaneously evaluate col.3:64-68, see evaluated simultaneously col.4:65-68*). It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of *Court et al.* into that of *Ptacek et al.* to include concurrent evaluation of first and second sub-statements. And the motivation for doing so would have been to reduce execution time required by the evaluator (i.e., processor).

As per claim 5, it recites limitations, which have been addressed in claim 4, therefore, is rejected for the same reasons as cited in claim 4.

9. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ptacek et al.* as applied to claim 1 further in view of Davidson et al. (US 5613117), hereinafter, *Davidson et al.*.

As per claim 6, *Ptacek et al.* teach the method as applied to claim 1 wherein the first and second sub-statements are evaluated and the evaluation result of the statement is said distinguished value if evaluation of at least one of the first and second sub-statements fails (see claim 2), otherwise, the evaluation result of the statement is said distinguished value if evaluation of both the first and second sub-statement fails (see claim 3). *Ptacek et al.* do not expressly disclose the second sub-statement is evaluated independently on whether evaluation of the first

sub-statement succeeds. However, *Davidson et al.* disclose a method for evaluating the second sub-statement independently on whether evaluation of the first sub-statement succeeds and the evaluation result of the statement is said distinguished value if evaluation of at least one of the first and second sub-statements fails (e.g., see *full evaluation* col.39:59-60, see *LANDU computes the logical conjunction of the two Boolean values, guaranteeing that both operands will be evaluated* col.65:56-58), otherwise, the evaluation result of the statement is said distinguished value if evaluation of both the first and second sub-statement fails (e.g., see *LORU Computes the logical disjunction of two Boolean values, guaranteeing that both operands will be evaluated* col.65:66-col.66:7). It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of *Davidson et al.* into that of *Ptacek et al.* to include full evaluation of both first and second sub-statements. And the motivation for doing so would have been that full evaluation of both first and second sub-statements yield real mode values, which may represent named, literals or specific address modes for a compiler.

As per claim 7, it recites limitations, which have been addressed in claim 6, therefore, is rejected for the same reasons as cited in claim 6.

10. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Ptacek et al.* as applied to claim 1 in view of Dave Dyer – Java decompilers compared (http://www.javaworld.com/javaworld/jw-07-1997/jw-07-1997/jw-07-decompilers_p.html), hereinafter, *Java*.

As per claim 10, *Ptacek et al.* teach the method as applied to claim 1. *Ptacek et al.* do not expressly disclose at least one of the first or second sub-statements includes an ordered action system. However, *Java* discloses a programming language statement with at least one of the first or second sub-statements including an ordered action system (e.g., see *switch (CTL_PC)* page 9 under section **DejaVu's reconstruction**). It would have been obvious to one of ordinary

skill in the pertinent art at the time the invention was made incorporate the teaching of *Java* into that of *Ptacek et al.* to include an ordered action system in at least one of the first or second sub-statements. And the motivation for doing so would have been that switch statements are designed to efficiently define many alternative branches (i.e., cases) (in comparison to defining alternative branches by nesting many if-then-else statements), exactly one of which can be selected from for execution without the need to test or evaluate subsequent branches, thus reducing execution time required by the evaluator (i.e., processor).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:
- System and method for text searching using an n-ary search tree, Moreland (US 5412807)
 - Compiler back end calling predetermined front end routines that use effect and dependency indicators to provide information to the compiler to determine the validity of an optimization, Faiman et al. (US 5493675)
 - Analyzing inductive expressions in a multilanguage optimizing compiler, Blickstein (US 5577253)
 - System for creating, editing, displaying, and executing rules-based programming language rules having action part subsets for both true and false evaluation of the conditional part, Knudsen (US 5596752)
 - Interface for symbol table construction in a multilanguage optimizing compiler, Murphy et al. (US 5659753)
 - Method and apparatus for creating a flowchart using a programmed computer which will automatically result in a structured program, Pruitt (US 6179490)
 - Server-side scripting language and programming tool, Heninger et al. (US 6470349)
 - Method for determining reachable methods in object-oriented applications that use class libraries, Bacon et al. (US 6463581)

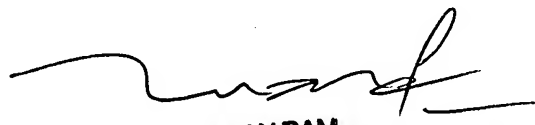
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 703.605.1219. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on 703.305.4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chrystine Pham
Examiner
GAU 2122

After October 25, 2004, examiner can be reached at new telephone number (571) 272-3702, and the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3694.



TUAN DAM
SUPERVISORY PATENT EXAMINER